WHAT IS CLAIMED IS:

1. A fluid-less damper for a bearing of an energy storage device.

2. A bearing damper as recited in claim 1, comprising at least one mesh disk.

3. A bearing damper as recited in claim 2, wherein said mesh disk, having an outer periphery, is confined in and axially restrained by a groove of a clamping device at the outer periphery of the mesh disk.

4. A bearing damper as recited in claim 3, wherein the clamping device is fixedly secured to a mounting plate in the energy storage device.

5. A bearing damper as recited in claim 2, wherein said mesh disk is fabricated from a material selected from a group comprising copper, aluminum, and carbon fiber composite materials.

6. A bearing damper as recited in claim 2, wherein the bearing damper comprises a plurality of mesh disks that are fixedly attached together.

7. A bearing damper as recited in claim 2, wherein said mesh disks are made of similar material.

8. A bearing damper as recited in claim 1, wherein said mesh disks are made of dissimilar materials.

9. A bearing damper as recited in claim 7, wherein the similar material comprises oxygen free copper.

10. A bearing damper as recited in claim 1, wherein the bearing damper provides a radial stiffness between about 1500 and about 5000 pounds per inch.

11. A bearing damper as recited in claim 10, wherein the bearing damper provides a radial stiffness between about 1500 and about 4000 pounds per inch.

12. A bearing damper as recited in claim 1, wherein the bearing damper provides an axial stiffness between about 100 to about 300 pounds per inch.

13. A bearing damper as recited in claim 12, wherein the bearing damper provides an axial stiffness of about 200 pounds per inch.

14. A bearing damper as recited in claim 1, wherein the bearing damper provides a transverse stiffness between about 1 and about 5 pounds per inch.

15. A bearing damper as recited in claim 14, wherein the bearing damper provides a transverse stiffness of about 5 pounds per inch.

16. A bearing damper as recited in claim 1, wherein the bearing damper provides a radial damping between about 1 and about 10 pound-seconds per inch.

17. A bearing damper as recited in claim 16, wherein the bearing damper provides a radial damping between about 5 pound-seconds per inch.

18. A system for damping vibrations produced by a flywheel assembly of an energy storage device, having a rotary shaft, comprising at least one fluid-freebearing damper.

19. A system for damping vibrations produced by a flywheel assembly as recited in claim 18, wherein said fluid-free bearing damper provides a radial stiffness between about 1500 and about 5000 pounds per inch.

20. A system for damping vibrations produced by a flywheel assembly as recited in claim 19, wherein said fluid-less bearing damper provides a radial stiffness between about 1500 and about 4000 pounds per inch.

21. A system for damping vibrations produced by a flywheel assembly as recited in claim 18, wherein said fluid-free bearing damper provides an axial stiffness between about 100 and about 300 pounds per inch.

22. A system for damping vibrations produced by a flywheel assembly as recited in claim 21, wherein said fluid-free bearing damper provides an axial stiffness of about 200 pounds per inch.

23. A system for damping vibrations produced by a flywheel assembly as recited in claim 18, wherein said fluid-free bearing damper provides a transverse stiffness between about 1 and about 5 pounds per inch.

24. A system for damping vibrations produced by a flywheel assembly as recited in claim 23, wherein said fluid-free bearing damper provides a transverse stiffness of about 5 pounds per inch.

25. A system for damping vibrations produced by a flywheel assembly as recited in claim 18, wherein said fluid-free bearing damper provides a radial damping less between about 1 and about 10 pound-seconds per inch.

26. A system for damping vibrations produced by a flywheel assembly as recited in claim 25, wherein said fluid-free bearing damper provides a radial damping of about 5 pound-seconds per inch.